



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/811,703	03/19/2001	Timothy J. Wojcik	81359N-R	9473

7590

08/01/2003

Milton S. Sales
Patent Legal Staff
Eastman Kodak Company
343 State Street
Rochester, NY 14650-2201

EXAMINER

LIANG, LEONARD S

ART UNIT

PAPER NUMBER

2853

DATE MAILED: 08/01/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/811,703

Applicant(s)

WOJCIK ET AL.

Examiner

Leonard S Liang

Art Unit

2853

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34, 38 and 40-43 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-34, 38, 40-43 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION***Claim Rejections - 35 USC § 103***

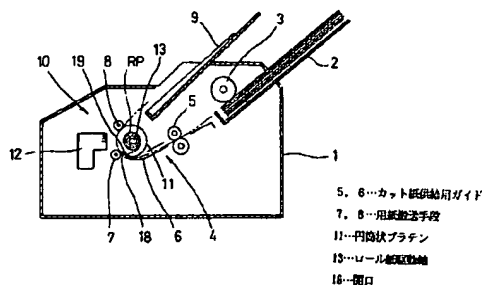
The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

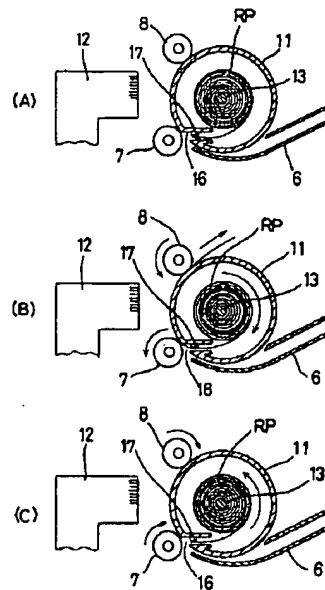
1. Claims 1-4, 6-7, 9-10, 13-19, 21, 24, 26-27, 31-34, and 40-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikumura et al (JP Pat 405147284) in view of Kenbo (JP Pat 358028393).

Kikumura et al discloses:

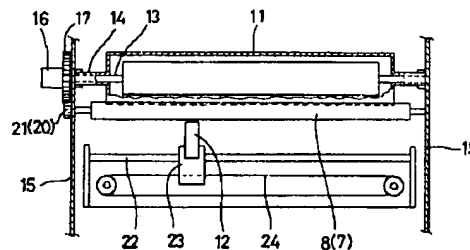
- {claim 1} printer system for producing variable sized printed receiver media (figure 1, reference 2, RP as shown below; Detailed Description, page 3, paragraph 0018; variable sized printing inherent in light of roll sheet RP and end of printing checker) comprising:



a receiver media handling system for an inkjet printer having an internal media supply roll (figure 3A-C, reference 13, RP as shown below);



rotary drum (figure 3, reference 11); receiver media feeder (figure 3A-C, reference 16-17); an inkjet printhead (figure 2, reference 12 as shown below) for printing images within an image area on the receiver media from the supply roll, the inkjet printhead being positioned relative to the rotary drum so as to form the image while the receiver media having the image area is supported on the outer surface of the rotary drum (figure 1, 3A-C, reference 12);



and a post-print treatment station (figure 1, reference 9)

- {claim 2} lead edge clamp (figure 1, reference 8); motorized means (Detailed Description page 2, line 24; page 3, lines 19-22)
- {claim 3} the rotary drum is adapted to run causing the cut receiver media to unload onto the post-print station (Detailed Description, page 3, paragraph 0017, 0018)
- {claims 4 and 21} drive roller (figure 3, reference 7)
- {claim 6 and 19} lead edge clamp (as taught in claim 2) for retaining the receiver media from the supply roll in a printing position by tensioning the receiver media from the

Art Unit: 2853

supply roll between the lead edge clamp and the receiver media supply roll (figure 3, reference 8)

- {claims 7 and 17} rotary drum returns to receiver media feed position to begin new cycle (figure 3C; Detailed Description page 3, lines 19-21)
- {claims 10 and 26} in-feed guide which causes cut receiver media to exit onto a paper tray (figure 1, reference 9)
- {claim 13} printhead adapted to translate across rotary drum (figure 2, references 11, 23)
- {claim 14} A printer system comprising a printhead for printing images on receiver and a receiver media handling system for producing variable sized printed receiver media (as taught in claim 1); a rotatable drum mounted for rotation about an axis and having an internal receiver media supply roll supported within the drum and having a tube-shaped outer surface, the outer surface of the drum being located relative to the printhead for printing of an area on the receiver media while supported on the drum (figure 1, 3A-C; as taught in claim 1); a receiver media feeder (as taught in claim 1); clamp (figure 1, reference 7, 8); a receiver media transport for causing the receiver media to move in a first direction from the supply roll to a printing position on the drum and to move in a second direction opposite the first direction to advance the receiver media to a cutting position following printing (Detailed Description page 2, line 24; page 3, lines 19-22)
- {claim 15} the drum is a rotary drum (figure 1, reference 11)
- {claim 16} causing the rotary drum to rotate so as to position the cut receiver media to exit (as taught in claim 3)
- {claim 18} lead edge clamp (figure 1, reference 7)
- {claim 27} A method of printing to form different sizes of printed cut receiver media; drawing the receiver media from a supply roll stored within a tube-shaped drum so that the drawn receiver media is moved and supported along an outer surface of the drum (as taught in claim 1; method implied by apparatus disclosure); retaining an edge of the receiver media from the supply roll at a location about the rotary drum (figure 1, reference 7, 8); printing an image on the receiver media that is supported on the outer surface of the drum (as taught in claim 1)
- {claim 31} defining an image area on the receiver media for printing (inherent to invention)

Art Unit: 2853

- {claim 32} tensioning the receiver media around the rotary drum through the receiver media supply roll (figure 1)
- {claim 33} the tensioning step is followed by the step of activating the drum to rotate (figure 3B)
- {claim 34} the activating step is followed by the step of translating a printhead across the rotary drum for printing images on the receiver media within the image area (figure 2, Detailed Description, reference 0017 and 0018)
- {claim 43} rotary drum returns to a paper feed position for the next cycle (figure 3C; Detailed Description, page 3, lines 19-21)

Kikumura differs from the claimed invention in that it does not disclose:

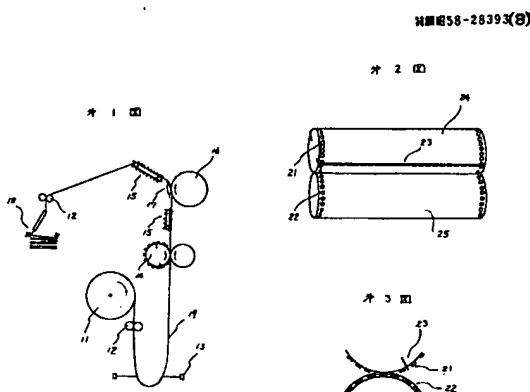
- {claim 1} a plurality of cutter notches; a cutting blade adapted to cooperate with the cutter notches for cutting receiver media at any one of the cutter notches for cutting receiver media at any one of the cutter notches in accordance with a selected one of plural different sizes
- {claim 9} determining the location to cut the receiver media utilizing the image area for a current print job
- {claim 14} a plurality of cutter notches predisposed at predetermined circumferentially spaced location on the drum; cutting blade; in the cutting position, the cutting blade is adapted to cooperate with one of the cutter notches to cut the printed receiver media from the supply roll to form the printed cut receiver media to be produced in one of plural selectable sizes in accordance with the notch employed for cutting
- {claim 24} rotary cutter wheel
- {claim 27} rotating the drum to advance the receiver media to a position where a cutter may cut the receiver media at any one of plural predetermined locations on the receiver media in accordance with a cut receiver media size selected; cutting the receiver media; removing the cut receiver media
- {claim 40} in the cutting step a cutter blade comes in contact with the receiver media on the rotary drum by running the cutter blade against a cutter notch on the outer surface
- {claim 41} rotating the rotary drum so that a cutting blade is opposite one of plural selected notches that are formed on the outer surface of the drum and which notches are circumferentially spaced along the outer surface of the drum

Art Unit: 2853

- {claim 42} in the removing step, the rotary drum rotates to advance the cut receiver media onto a path of a stripper guide

Kenbo discloses:

- {claims 1, 14, and 27} plurality of cutter notches (figure 1, reference 22; abstract); cutting blade (figure 1, reference 21; abstract)



- {claim 24} rotary cutter wheel (figure 2, reference 21)
- {claim 40} in the cutting step a cutter blade comes in contact with the receiver media on the rotary drum by running the cutter blade against a cutter notch on the outer surface (figure 2, reference 21-22)
- {claim 41} rotating the rotary drum so that a cutting blade is opposite one of plural selected notches that are formed on the outer surface of the drum and which notches are circumferentially spaced along the outer surface of the drum (figure 2, reference 21-22)
- {claim 42} in the removing step, the rotary drum rotates to advance the cut receiver media onto a path of a stripper guide (figure 1, reference 8, 9; rage 3, paragraph 0018)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the cutter notches, cutter blades, and cutter wheel disclosed by Kenbo into the invention of Kikumura et al in order to cut the receiver media. The motivation for the skilled artisan in doing so is to gain the benefit of printing on an inexpensive long rolled sheet and dividing the sheet by cutting (abstract). The combination naturally suggests the cutter blade cooperating with the cutter notches for cutting the receiver media at any one of the cutter notches in accordance with a selected one of plural different sizes; determining the location to cut the receiver media utilizing the image area for the current print job; a post-print station adapted to receive the variable sized printed receiver media after the receiver

media is cut from the supply roll; rotating the drum to advance the receiver media to a position where a cutter may cut the receiver media at any one of plural predetermined locations on the receiver media in accordance with a cut receiver media size selected.

2. Claims 5, 22, and 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikumura et al (JP Pat 405147284) in view of Kenbo (JP Pat 358028393) as applied to claims 4 and 21 above, and further in view of Kamano et al (US Pat 6375319).

Kikumura et al in view of Kenbo discloses:

- {claim 29} driving the receiver media around the rotary drum and out to a lead edge clamp (figure 1, reference 8)
- {claim 30} guiding the receiver media around the circumference of the rotary drum (figure 3B)

Kikumura et al in view of Kenbo differs from the claimed invention in that it does not disclose that the drive roller is retractable and configured to retract for printing.

Kamano et al discloses a retractable feed roller (figure 2, reference 91; column 5, lines 56-67; column 6, lines 1-6)

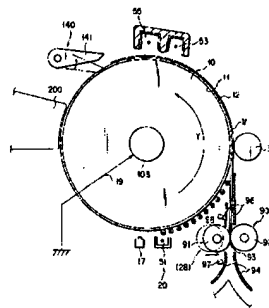


FIG. 2

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the retractable feed roller disclosed by Kamano et al into the invention of Kikumura et al in view of Kenbo so that the roller is retracted for printing. The motivation for the skilled artisan in doing so is to gain the benefit of preventing a load from being applied to the rotary drum which rotates the paper sheet (column 6, lines 3-6).

3. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kikumura et al (JP Pat 405147284) in view of Kenbo (JP Pat 358028393), as applied to claim 1 above, and further in view of Kakutani et al (US Pat 6299283).

Art Unit: 2853

Kikumura et al in view of Kenbo differs from the claimed invention in that it does not disclose that the amounts of receiver media from the supply roll on the outer surface of the rotary drum is constant for all requested print formats.

Kakutani et al discloses, with respect to claim 8, a printing apparatus with constant feed (abstract). Thus, it is inherent to the invention that the receiver media from the supply roll on the outer surface of the rotary drum is constant for all requested print formats (since the actual amount of supply media that is fed is the same despite the requested print format). Kakutani teaches that the invention "improves image quality by mitigating the effect of any irregularity that may be present in the nozzle pitch, the jetting Feature and the like." (column 1, lines 63-65)

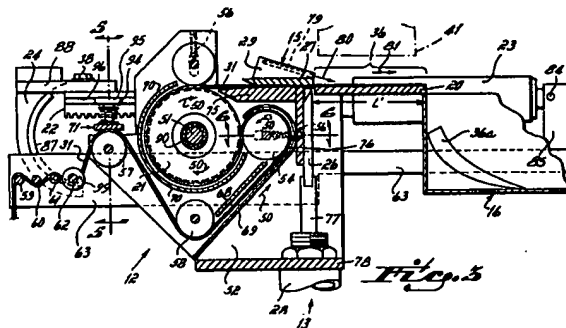
It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teachings of Kakutani et al into the invention of Kikumura et al in view of Kenbo so that the amounts of receiver media from the supply roll on the outer surface of the rotary drum is constant for all requested print formats. The motivation for the skilled artisan in doing so is to gain the benefit of improved image quality, as taught above.

4. Claims 11 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikumura et al (JP Pat 405147284) in view of Kenbo (JP Pat 358028393), as applied to claims 2 and 18 above, and further in view of Clay (US Pat 4282808).

Kikumura et al in view of Kenbo differs from the claimed invention in that it does not disclose an outer guide shoe adapted to guide the receiver media from the supply roll toward the lead edge clamp.

Clay discloses, with respect to claims 11 and 20, an outer guide shoe (figure 3, reference 70; column 4, lines 32-35). Clay teaches that the guide shoe aids in preventing backlash of the endless tape strip 31 (i.e. receiver medium) as it proceeds through the tape feed mechanism 12 (column 4, lines 32-35)

U.S. Patent Aug. 11, 1981 Sheet 2 of 3 4,282,808



Art Unit: 2853

It would have been obvious to one having ordinary skill in the art at the time the invention was made incorporate the invention of Clay into the invention of Kikumura et al in view of Kenbo in order to guide the receiver media from the supply roll toward the lead edge clamp. The motivation for the skilled artisan in doing so is to gain the benefit of being able to prevent backlash of the receiver media, as taught above.

5. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kikumura et al (JP Pat 405147284) in view of Kenbo (JP Pat 358028393), as applied to claim 1 above, and further in view of Drake (US Pat 5098503).

Kikumura et al in view of Kenbo differs from the claimed invention in that it does not disclose that the printhead is page-width.

Drake discloses, with respect to claim 12, a page-width printhead (column 2, lines 7-8). Drake teaches that having a page-width printhead is desirable because it allows high speed printing to be performed (column 2, lines 7-8).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the page-width printhead disclosed by Drake into the invention of Kikumura et al in view of Kenbo so that the printhead is page-width. The motivation for the skilled artisan in doing so is to gain the benefit of allowing high-speed printing to be performed, as taught above.

6. Claims 23 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikumura et al (JP Pat 405147284) in view of Kenbo (JP Pat 358028393), as applied to claim 14 above, and further in view of Bickoff et al (US Pat 5482389).

Kikumura et al in view of Kenbo differs from the claimed invention in that it does not disclose that the cutting blade is a retractable cutting blade.

Bickoff et al discloses, with respect to claims 23 and 25 a retractable cutting blade (figure 1, reference 7; column 2, lines 54-55; abstract). Bickoff teaches that such a retractable cutting blade offers many advantages in terms of simplicity, economy of design, maintainability, and reliability (column 1, lines 8-13).

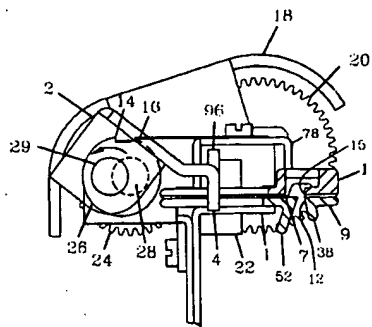


FIGURE 1

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the retractable cutting blades disclosed by Bickoff et al into the invention of Kikumura et al in order to cut the receiver media at any one of the cutter notches. The motivation for the skilled artisan in doing so is to gain the benefit of the many advantages of the invention, in terms of simplicity, economy of design, maintainability, and reliability, as taught above. The combination naturally suggests that the rotating cutter wheel is configured to retract from the drum.

7. Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kikumura et al (JP Pat 405147284) in view of Kenbo (JP Pat 358028393), as applied to claim 27 above, and further in view of Nuita et al (US Pat 6050683).

Kikumura et al in view of Kenbo differs from the claimed invention in that it does not disclose:

- {claim 38} the cutting step is preceded by the step of deactivating the rotary drum

Nuita et al discloses:

- {claim 38} deactivating the rotary drum (column 1, lines 35-40)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the teachings of Nuita et al into the invention of Kikumura et al in view of Kenbo so that the cutting step is preceded by the step of deactivating the rotary drum. The motivation for the skilled artisan in doing so is to gain the benefit of preventing a printhead from being damaged due to a rise of the paper sheet (column 1, lines 36-40). The combination naturally suggests that the cutting step is preceded by the step of deactivating the rotary drum since cutting is part of the paper removal process.

Response to Arguments

Applicant's arguments filed 05/28/03 have been fully considered but they are not persuasive.

• Art Unit: 2853

The applicant argues, "Firstly, the Examiner interprets the machine translation of Kikumura as teaching that perforation is made after printing in the apparatus of this reference. However there is no teaching of such a structure on the print drum for this and indeed, as the Examiner acknowledges, this reference specifically teaches that "all operation will be completed here" just before discussing the subject matter of the perforations." The applicant goes on to argue that this implies that perforations must be placed on the roll before the roll was placed in the machine. The examiner does not desire to argue about the language interpretation of a machine translation, since the translation may not be completely reliable. However, the examiner contends that whether perforation existed before or after printing is irrelevant to the fact that Kikumura discloses producing a variable sized printed receiver media, as claimed. As discussed in the previous response, perforation is not the same as separation. The ability to print on a number of sheets, though perforated, allows for variable sized printed receiver media; printing could occur on a variable number of sheets before actually being separated.

The applicant further argues, "In considering the Kenbo secondary reference, the Examiner indicates that the secondary reference discloses a plurality of cutter notches. The notches identified appear to be those for placing sprocket holes in the receiver sheet prior to entry of the receiver media in the print station and are thus used for accurate feeding of the receiver media through the print station. The Examiner has failed to indicate how these sprocket creating notches are used to cooperate with a cutting blade for cutting receiver media at any one of the cutter notches in accordance with a size of printed cut receiver media to be produced.'... For example, as noted above sprocket holes are placed in the web in the Kenbo reference prior to movement of the receiver media to be printed onto the print drum. This is done to accurately control movement of the receiver media through the print station. Thus, there is no need in either of these references for making the modifications suggested by the examiner absent reference to applicant's specification." The examiner responds by noting that Kikumura et al discloses a printer system with a teaching for separating sheets of different sizes (as discussed above with respect to perforations). However, Kikumura et al does not disclose a specific cutting mechanism using cutter notches, and that is why Kenbo was used in combination. Kikumura et al only requires the cutting mechanism disclosed by Kenbo, and so it is irrelevant that the cutting mechanism in Kenbo is located before its printing mechanism. It is naturally suggested that the cutting mechanism disclosed by Kenbo could replace the perforation-hand separation paper separating means disclosed by Kikumura et al as the means of separating images after they have been printed on variable sized media. The motivation for cutting the paper, even at the perforations, over tearing them by hand is obvious to one of ordinary skill in the art (i.e. more precise separation, faster operation, avoiding paper cuts, etc...). The applicant

Art Unit: 2853

argues that the cutter used in Kenbo is used for different motivations, but the examiner contends that the motivation for use does not have to be the same as that disclosed by Kenbo as long as the motivation is proper, which it is believed to be in this case.

Finally, the applicant argues, "Regarding the new citation of Kamano et al... while this may show a roller 91 that can move to different positions, such roller does not interface with the print drum as is being claimed in applicant's claims." The examiner responds that Kamano et al is being used in combination with Kikumura et al, which does disclose a printing drum. Thus, the combination, as shown above, fully reads on the claimed invention.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

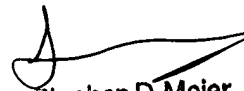
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonard S Liang whose telephone number is (703) 305-4754. The examiner can normally be reached on 8:30-5 Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on (703) 308-4896. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7724 for regular communications and (703) 308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

lsl LSL
July 29, 2003


Stephen D. Meier
Primary Examiner